



DOCUMENT 20150460

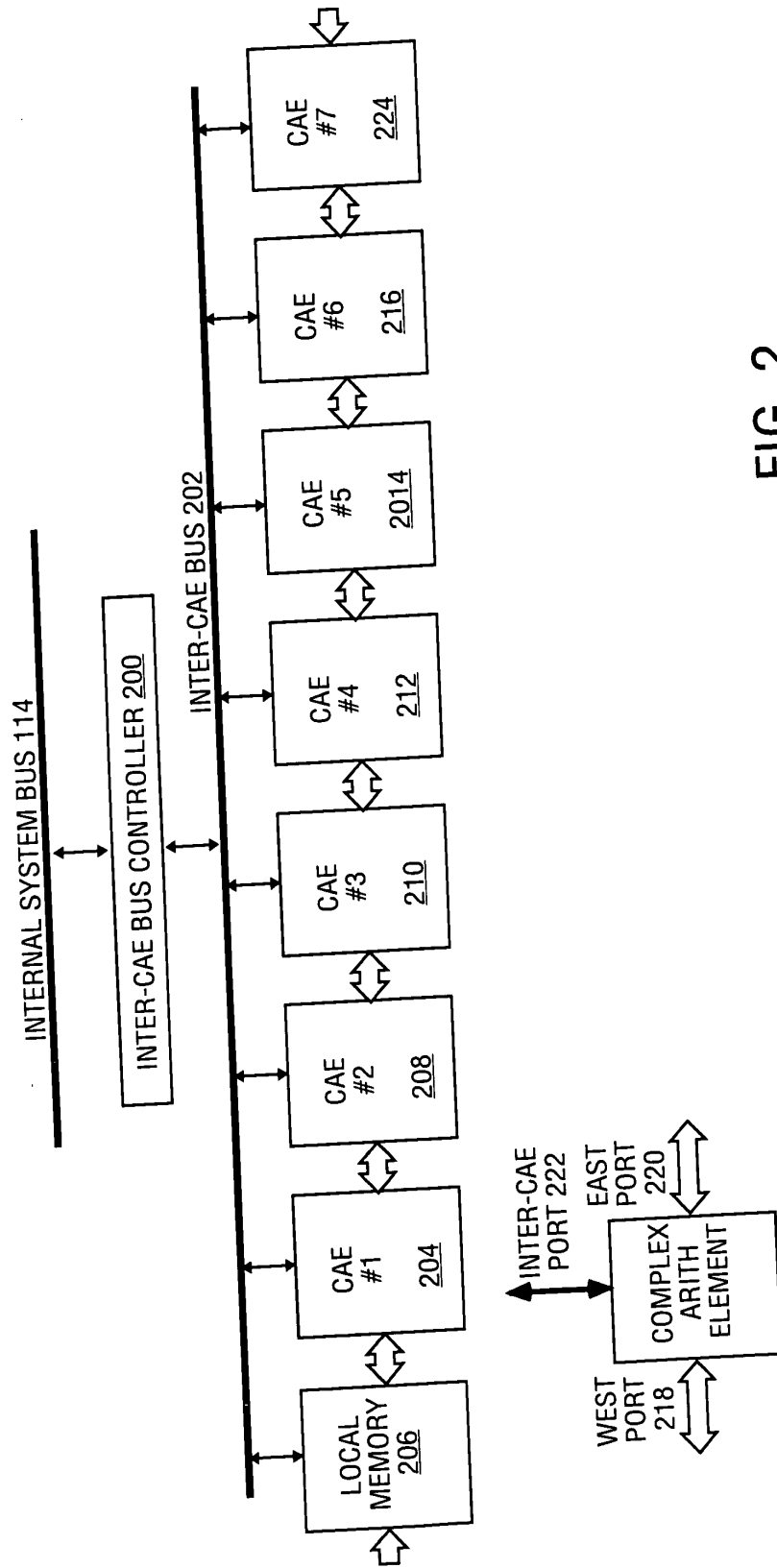


FIG. 2

005227 245460

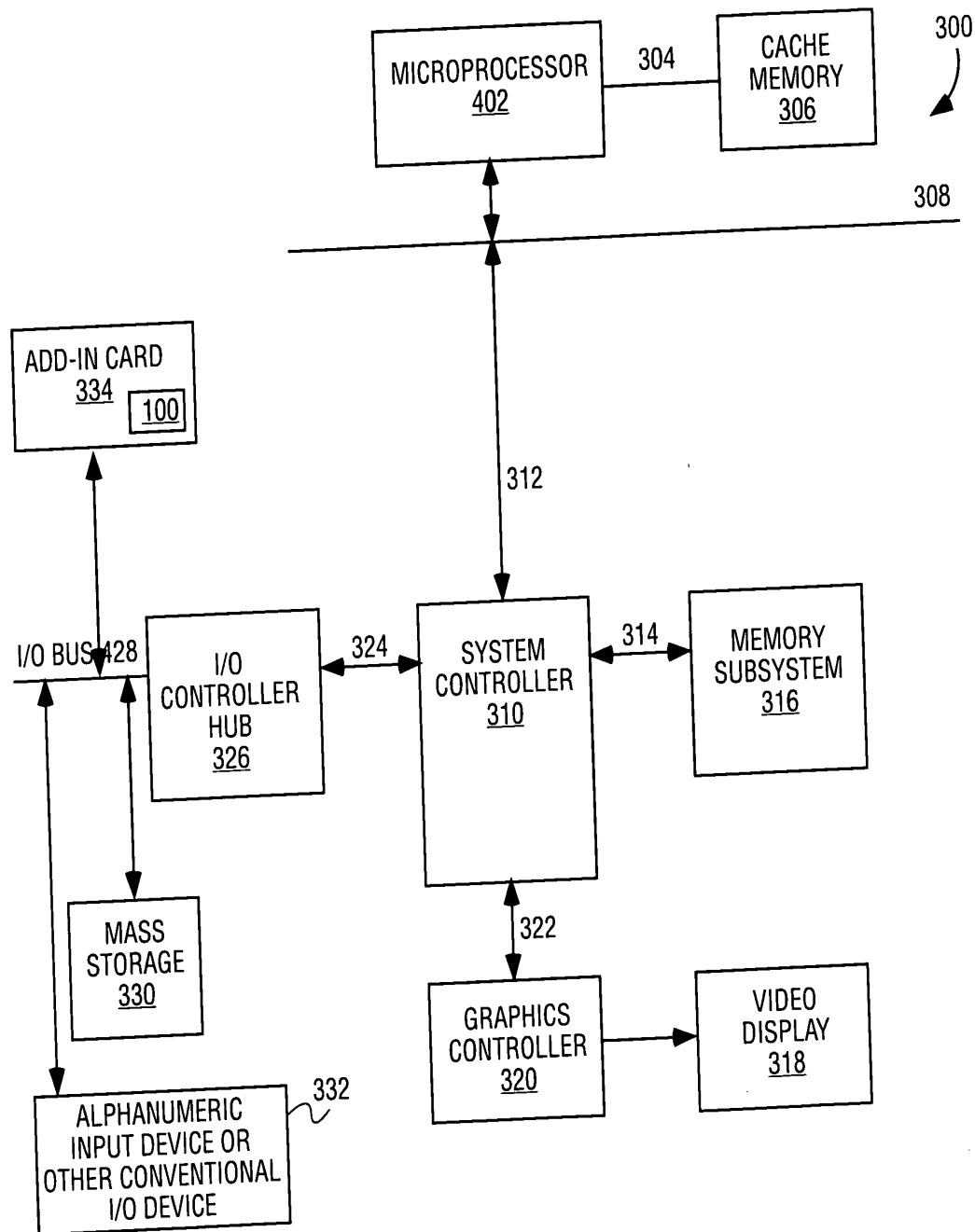


FIG. 3

006221" 254450

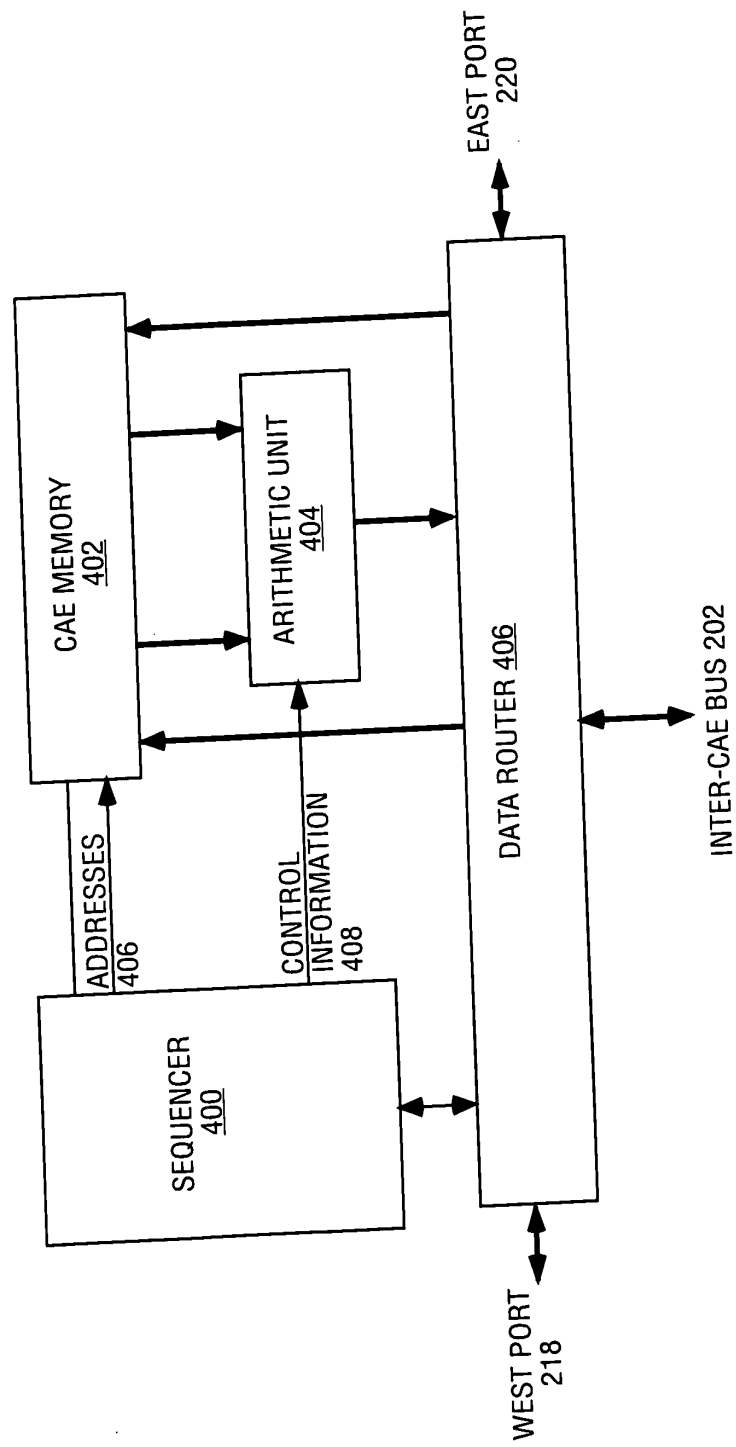


FIG. 4



The diagram illustrates the internal structure of a MAC ENGINE 500. It features a central processing area enclosed in a large rectangle. At the top, three input sources are shown: DATA MEMORY 518, FROM REGISTER FILE 500, and DATA MEMORY 520. Arrows from these sources point to the first PRE-ADDER 510. A signal line labeled 408 also enters the first PRE-ADDER 510 from the left. The output of the first PRE-ADDER 510 is connected to a MULTIPLIER 512. The output of the MULTIPLIER 512 is then fed into a second PRE-ADDER 510. Additionally, an input labeled 'OUTPUT OF MULTIPLIER 512 FROM OTHER MAC ENGINES' is connected to this second PRE-ADDER 510. The output of the second PRE-ADDER 510 is connected to a third PRE-ADDER 510. An input labeled 'OUTPUT OF ACCUMULATOR 514 FROM OTHER MAC ENGINES' is also connected to this final PRE-ADDER 510. The output of the third PRE-ADDER 510 is the final output of the MAC ENGINE 500. The entire structure is labeled MAC ENGINE 500 at the bottom right.

FIG. 5B

00622T " 2222T 5560

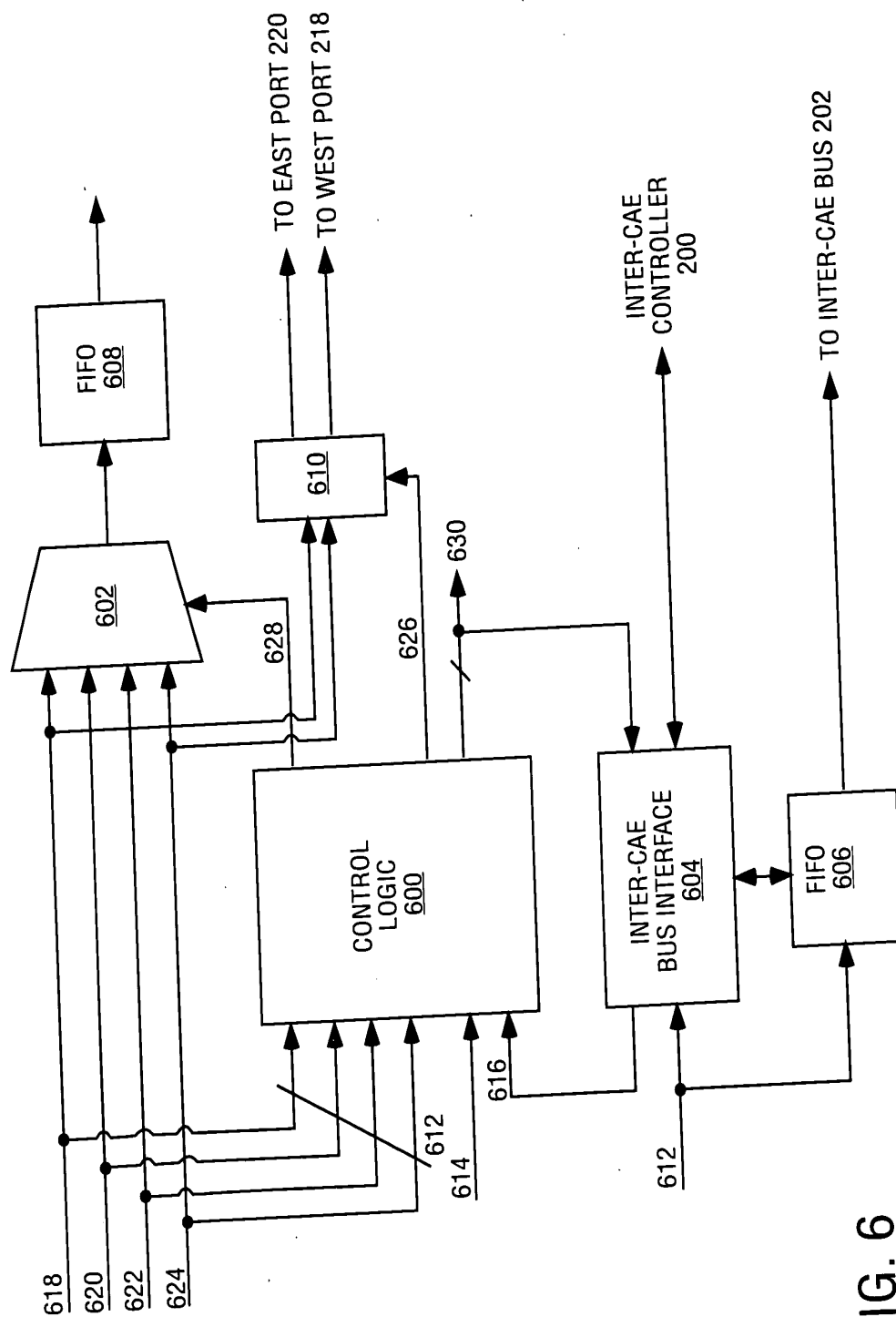


FIG. 6